Applicants initially would like to thank the Examiner for taking the time on March 13, 2001 to discuss the present application with the undersigned. The Examiner's efforts in clarifying the basis of his rejection were much appreciated. In view of such clarification, applicants believe it would be beneficial to reemphasize some of the distinguishing features of the present invention as presented below.

I. SUMMARY OF INVENTION

Claims 1 and 11 define an optical disk apparatus and method, respectively, in accordance with the present invention. Rather than simply the recording or reproduction of information on the optical disk, however, *the invention relates to the manner in which control parameters are set and changed by the apparatus in relation to the optical disk.*

For example, claim 1 recites a control parameter setting unit and a controller for setting and changing a control parameter (e.g., a focus position of a light beam, a tilt angle of the light beam, an intensity of the light beam, and an equalization characteristic of the light beam, as recited in claim 7). The control parameter setting unit and controller of claim 1 may be distinguished over the control parameter setting units and controller of a conventional optical disk apparatus by the manner in which the control parameter setting unit and controller set and change the control parameter.

Specifically, claim 1 recites how the control parameter is changed as a result of a recording and reproduction unit recording a signal in both at least one continuous groove track and at least one continuous land track. *After* the signal is recorded in *both* the groove track and the land track, the recording and reproduction unit reproduces the signal from *both* the groove track and the land track. A quality of the signal thus recorded and reproduced is detected and the control parameter is determined based on the quality of the signal.

In a conventional optical disk apparatus as described in the present application, a signal is recorded first in a land track and then reproduced from the land track. Thereafter, a signal is recorded in a groove track and then reproduced from the groove track. Then, based on the signals reproduced from the land track and the groove track,

the control parameter is adjusted. (See, e.g., Spec., background of invention at page 5, line 6, to page 6, line 9).

Thus, the present invention and the conventional approach, as well as some of the differences therebetween, can be summarized as follows:

Present Invention:	Conventional Approach:
i) record a signal in *both* a groove track and a land track;	i) record a signal in a land track;
ii) reproduce signal from *both* groove track and land track; and	ii) reproduce signal from land track;
iii) change control parameter based on quality of thus recorded and reproduced signal.	iii) record a signal in a groove track;
	iv) reproduce signal from groove track; and
	v) change control parameter based on quality of thus recorded and reproduced signals.

As is discussed in the present application, there are a number of advantages with such a construction in accordance with the present invention. For example, it reduces the time required in order to perform the control parameter changing process. In particular, the specification describes a reduction in the number of rotations necessary to achieve the desired settings. (See, e.g., pages 29-30).

In view of the above, applicants believe the distinctions and advantages of the present invention over the cited references will become increasingly apparent.

II. REJECTION OF CLAIMS 1-20 UNDER 35 USC §112, 1ST ¶

Claims 1-20 stand rejected under 35 USC §112, first paragraph, as being non-enabled by the specification. This rejection is respectfully traversed for at least the following reasons.

Specifically, the Examiner indicates that the continuous recording/reproducing as now claimed is not adequately disclosed. Applicants are unsure of exactly what the Examiner means by "continuous recording/reproducing". Based on the Examiner's

comments in the last paragraph of page 4 and the summary on page 6 of the Office Action, the Examiner appears to be interpreting applicants' claims as simply trying to claim what is known in the art as SS-L/G.

However, it will hopefully be clear now that claims 1 and 11 are directed to an apparatus and method for setting and changing a control parameter in relation to an optical disk. Applicants are by no means claiming an apparatus or method by which both recording and reproducing are performed continuously if that is the Examiner's understanding. Nor, for that matter, are claims 1 and 11 simply directed to SS-L/G. Rather, claims 1 and 11 relate to the particular manner in which a control parameter is set and changed. While the present invention has application in SS-L/G, it is by no means inherent in SS-L/G.

Accordingly, withdrawal of the rejection is respectfully requested.

III. REJECTION OF CLAIMS 1, 2, 7, 9, 11, 12, 17 and 19 UNDER 35 USC §103(a)

Claims 1, 2, 7, 9, 11, 12, 17 and 19 stand finally rejected under 35 USC §103(a) based on acknowledged prior art *JP4-141827* in view of *Moriya et al.* This rejection is respectfully traversed for at least the following reasons.

Regarding claims 1 and 11, the Examiner asserts that the recording technique described at Col. 12, lines 35-55 of *Moriya et al.* meets the limitations of the claims. Applicants respectfully disagree.

For example, *Moriya et al.* teaches that a groove track and a land track can be recorded or reproduced continuously (see, e.g., Col. 12, lns. 53-55). However, *Moriya et al.* does not teach or suggest the above-discussed features of claims 1 and 11 in relation to setting and changing a control parameter. Specifically, *Moriya et al.* does not teach or suggest i) recording a signal in *both* a groove track and a land track; ii) reproducing the signal from *both* the groove track and land track; and iii) changing the control parameter each time based on quality of thus recorded and reproduced signal. Thus, *Moriya et al.* suffers from the same deficiencies as *JP4-141827.*

In particular, *JP4-141827* also fails to teach or suggest setting and changing a control parameter as recited in claims 1 and 11. As is discussed above as the conventional approach (see Table), the background section of the present application describes how the teaching of *JP4-141827* may be applied to an optical disk having information recorded both on land tracks and groove tracks. However, it is pointed out that *the relevant control parameters must be obtained by repeating the recording and reproduction process for each land track and groove track separately*. That is to say, the signal is first recorded in a groove track, for example, and then reproduced from the groove track. Thereafter, the signal is recorded in a land track and then reproduced from the land track. It is only after each of these recording and reproducing steps separately to the groove track and the land track, that a control parameter may be changed.

Therefore, a longer time and more effort is required compared with the case of using only one of either the groove track or the land track. (See, e.g., spec, pages 3-6). Moreover, since such a conventional apparatus must obtain optimum recording focus positions for a land track and a groove track separately, the total time required for achieving optimization is greater than that required by the present invention. (See, e.g., spec, pages 29-30).

The present invention, on the other hand, may be distinguished over such conventional approach in the manner in which the invention records and reproduces the signal from the land and groove tracks. More specifically, the present invention as defined in amended claims 1 and 11 differs from such conventional approach as noted above in that *a signal is recorded in both the groove track and land track prior to being reproduced and evaluated for optimization purposes*. The present invention records a signal in *both* the groove track and land track, *and then* reproduces the signal from both the groove track and the land track in order to then perform the appropriate evaluation for purposes of optimization. Such approach is beneficial in that it reduces the time required in order to perform the process. For example, the specification describes a reduction in the number of rotations necessary to achieve the desired settings. (See, e.g., pages 29-30).

Neither *JP4-141827* nor *Moriya et al.* teach or suggest performing the signal recording with respect to both a groove track and land track, and then after recording the signal in both the groove track and the land track reproducing the signal from the groove track and the land track. Rather, *JP4-141827* and *Moriya et al.* teach the conventional approach of optimizing the parameters of the land track and groove track separately by first performing a recording and reproduction of signals from the land track, for example, and then performing a recording and reproduction of signals from the groove track. Hence, *JP4-141827* and *Moriya et al.* suffer from the aforementioned drawbacks associated with requiring a longer time to arrive at the appropriate control parameters.

Accordingly, claims 1 and 11 may be patentably distinguished over *JP4-141827* and *Moriya et al.* as can claims 2, 7, 9, 12, 17 and 19 which depend therefrom. Withdrawal of the rejection is respectfully requested.

IV. REJECTIONS OF REMAINING CLAIMS UNDER 35 USC §103(a)

Claims 3-6, 8, 10, 13-16, 18 and 20 are rejected under 35 USC §103(a) based on *JP4-141827* and *Moriya et al.* in combination with the *acknowledged prior art*, *Johann et al.* and *Pietrzykoski et al.* Withdrawal of each of the respective rejections is respectfully requested for at least the following reasons.

Claims 3-6, 8, 10, 13-16, 18 and 20 each depend from amended claim 1 or 11 either directly or indirectly. Consequently, these claims can be distinguished over the teachings of *JP4-141827* and *Moriya et al.* for at least the same reasons stated above. That is to say, neither *JP4-141827* nor *Moriya et al.* teach or suggest performing the signal recording with respect to both a groove track and land track, and then after recording the signal in both the groove track and the land track reproducing the signal from the groove track and the land track.

Furthermore, the *acknowledged prior art*, *Johann et al.* and *Pietrzykoski et al.* have not been found to make up for such deficiencies. Accordingly, withdrawal of the rejection is respectfully requested.

V. CONCLUSION

Accordingly, all claims 1-20 are believed to be allowable and the application is believed to be in condition for allowance. A prompt action to such end is earnestly solicited.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should a petition for an extension of time be necessary for the timely reply to the outstanding Office Action (or if such a petition has been made and an additional extension is necessary), petition is hereby made and the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account No. 18-0988.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Box AF, Assistant Commissioner for Patents, Washington, D.C. 20231.

April 16, 2001
DATE